

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of)	
CONSUMERS ENERGY COMPANY)	
for approval of a temporary waiver of Rule 460.2352)	Case No. U-17668
and for approval of alternative natural gas diaphragm)	
meter testing procedures.)	
_____)	

At the February 28, 2017 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Rachael A. Eubanks, Commissioner

ORDER

On November 21, 2016, Consumers Energy Company (Consumers) filed an application requesting an extension of a waiver of the Commission’s meter testing requirements in its Technical Standards for Gas Service (Technical Standards), Mich Admin Code, R 460.2351 (Rule 51) and R 460.2352 (Rule 52) respectively, and seeking *ex parte* approval of its alternative natural gas diaphragm meter testing procedures.

Rule 51 and Rule 52 of the Technical Standards govern the testing of natural gas meters. Rule 51 requires that periodic tests of meters, associated devices, and instruments be conducted in accordance with that rule¹ “unless otherwise authorized by the commission.” *See*, R 460.2351(e).

¹ Rule 51 essentially requires that 10% of all meters be tested every year so that all gas meters are tested once every ten years.

With Commission approval, a utility is permitted to implement the natural gas diaphragm meter testing requirements contained in Rule 52 as an alternative to the meter testing requirements in Rule 51. *See*, R 460.2352(1). Rule 52 requires the sample testing of 2% of each meter group (meters are grouped by year of installation) regardless of the performance of the meter lot. *See*, R 460.2352(6).

Consumers followed the meter testing requirements of Rule 52 for the testing of its natural gas diaphragm meters until the Commission issued an order in this docket approving a settlement agreement temporarily waiving compliance with Rule 52 through December 31, 2016. *See*, February 12, 2015 order. Seeking an extension of this waiver, Consumers requests Commission approval to continue to use table A-2 of ANSI/ASQC Z1.9 statistical sampling procedures to select natural gas diaphragm meter quantities for removal and testing for an additional three-year period ending December 31, 2019.

Consumers' requested natural gas diaphragm meter testing procedures, as provided in Attachment 1 to its November 21, 2016 application, will utilize meter lots that group meters according to specific characteristics such as type, make, size, purchase year, or other similar characteristics. On an annual basis, Consumers proposes to determine lot sample test quantities based on ANSI/ASQC Z1.9 table A-2, with the exception of: (1) smaller lots of meters where sampling will be conducted at a higher quantity than required by ANSI/ASQC Z1.9 table A-2, and (2) lots comprised of meters which are not compatible with the gas communication module required for the company's advanced metering infrastructure (AMI) and automated meter reading (AMR) projects. After these meters are removed from service, Consumers proposes to use a point system to determine the average test points for each meter lot. In addition to these testing procedures, Consumers will also designate certain meter lots as obsolete due to accuracy issues,

defect issues, age, and functional obsolescence, and retire those meters from service similar to the company's current practices.

In addition to an extension of the waiver already granted in this docket, Consumers requests a minor modification to the approved natural gas diaphragm meter testing procedures to address exchanging and testing of meter lots which contain meters that are not compatible with the company's AMI and AMR projects. Consumers proposes that the meter lot requirements for lots comprised of meters not compatible with the AMI and AMR projects will be determined based on the number of non-compatible meters in the lot.

Consumers also proposes to continue to file annual reports, no later than March 1 of each year of the waiver period, that address: (1) the meters that have been tested during the preceding calendar year; (2) the test plan for the preceding year, including actual quantities removed and tested during that year; and (3) the proposed test plan for the subsequent calendar year.

Furthermore, for the purposes of compliance with Mich Admin Code, R 460.2363 (Rule 63) of the Technical Standards addressing refunds for meter inaccuracy, Consumers requests that the Commission deem the utility to have "adopted the requirements of R 460.2352" for the duration of the waiver. Rule 63 provides, in relevant part, as follows: "If the utility has adopted the requirements of R 460.2352, the period that is used for determining the amount to be refunded shall be the period of inaccurate meter registration that is determined pursuant to the provisions of R 460.2362(1) to (2)." *See* Mich Admin Code, R 460.2363(1). Specifically, during the waiver period, Consumers requests that the period used for determining the amount to be refunded to the company's customers shall be the period of inaccurate meter registration that is determined pursuant to the provisions of Mich Admin Code, R 460.2362(1) to (2).

Finally, in order to implement Consumers' proposed natural gas diaphragm meter testing procedures, Consumers requests that the Commission approve its proposed amendment to Section B, Part 5 of its Rate Book for Natural Gas Service to reflect the requested Rule 52 waiver period as set forth in Attachment 2 to its November 21, 2016 application.

The Commission, having considered Consumers' application, finds the company's requested relief reasonable and in the public interest because it will permit the company to test and exchange its natural gas diaphragm meters in a more efficient manner. The Commission further finds that *ex parte* review and approval is appropriate because approval of the application will not affect rates or rate schedules resulting in an increase in the cost of service to customers. Accordingly, the Commission approves the application and grants the requested relief.

THEREFORE, IT IS ORDERED that:

A. Consumers Energy Company's request to waive the meter testing requirements in the Commission's Technical Standards for Gas Service until December 31, 2019 is approved.

B. Consumers Energy Company's request to implement the natural gas diaphragm meter testing procedures, as provided in Attachment A of this order, is approved for a period beginning with the date of this order and concluding December 31, 2019.

C. Consumers Energy Company shall file annual reports no later than March 1st of each year as described in Attachment A of this order.

D. Consumers Energy Company's request to amend Section B, Part 5 of the company's Rate Book for Natural Gas Service, attached as Attachment B of this order, is approved.

E. Within 30 days, Consumers Energy Company shall file a tariff sheet essentially the same as Attachment B of this order.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, under MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel.

Electronic notifications should be sent to the Executive Secretary at mpscedockets@michigan.gov and to the Michigan Department of the Attorney General - Public Service Division at pungp1@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Rachael A. Eubanks, Commissioner

By its action of February 28, 2017.

Kavita Kale, Executive Secretary

**Consumers Energy
Natural Gas Diaphragm Meter Testing Procedures**

Meter Lots

“Lot” means a group of meters as assigned by the utility according to specified meter characteristics, such as type, make, size, purchase year, or other similar characteristics. All Diaphragm meters will belong to one and only one lot, and will remain in that group until the meter is retired. Lots may be created using different combinations of characteristics within the meter population such as:

- Lot 1 example - All meters regardless of manufacturer or model with a capacity of 500 cubic feet per hour or less purchased prior to 1970
- Lot 2 example - All American 175 meters purchased between 1980 and 1989
- Lot 3 example - All Itron 250RMM meters purchased in 1999
- Lot 4 example – Specific serial number range
- Lot 5 example - All meters between 501 cubic feet and 1000 cubic feet purchased between 2000 and 2010

Meter Testing

On an annual basis, sample test quantities will be determined based on ANSI/ASQC Z1.9 table A-2, except for lots of smaller quantity which will be sampled at a higher quantity than required by the standard. In addition, for the duration of the Advanced Metering Infrastructure (“AMI”) and Automated Meter Reading (“AMR”) project deployments, the exchange and testing requirements for lots in which meters reside that are incompatible with an AMI/AMR Gas Communication Module, will comprise the entire removal and testing requirement for those lots, independent of ANSI/ASQC Z1.9 table A-2. Sample quantities required per lot will be as follows:

- Lot size 50 -1,000 - test 50
- Lot size 1,001-10,000 - test 75
- Lot size 10,000 – 75,000 – test 150

If a lot is smaller than 50 meters and over 10 years old the utility will remove and retire all meters from the lot. Lots will not exceed 75,000 meters.

All meters removed from service from each lot, independent of the reason for removal (i.e. for-cause, companion work order, other CE program etc.), may be utilized to meet the required sample quantities.

Non-registering meters or meters damaged affecting accuracy shall not apply to the sample results.

A meter or an associated metering device, or both, shall be tested after it is removed from service unless it is deemed obsolete. Meters removed from service in excess of the required samples for the lot, due to functional obsolescence, will be retired unless they are returned to service after testing.

A meter test will consist of the following:

- **Open Accuracy test** requires testing the meters at 80% - 100% capacity
- **Check Accuracy test** requires testing the meter at 20% - 35% capacity

The “overall average accuracy” result is calculated as the result of the open accuracy test plus the result of the check accuracy test divided by two. This value will be used to determine a point value for the test.

A “normal” test is one for which the overall average accuracy falls within the acceptable meter accuracy range between 98% and 102%.

“Point value” for a meter, is the numerical equivalent of the accuracy variance from normal, with 1 test point equal to a 1% variance. For example, meter accuracy that is between 104.1% and 105.0% or between 95.0% and 95.9% accurate on test is assigned 3 test points. All meter test results greater than 110% or less than 90% will be assigned 9 test points.

The “average test points” per meter for each lot is calculated by dividing the total number of test points by the total number of tests (not including stuck meters).

If a meter lot has an average test point value greater than 0.3, one of the following actions will be initiated:

- Double the sample size from the preceding previous year
- After doubling the sampling size, the utility may continue to test the meters at the same sample quantity until satisfactory results are achieved or the lot is deemed obsolete
- The lot is deemed obsolete

If more than 10% of the meters tested in a lot have an overall average accuracy greater than 102.0%, 100% of the meters removed in the subsequent year will be tested and will continue to be 100% tested until the results of the testing returns to a level of less than 10% of the tests being greater than 102.0%.

Obsolete Meters

As determined by the utility, a lot of meters may be deemed obsolete due to accuracy issues, defect issues, age or functional obsolescence. If a lot of meters is determined to be obsolete,

the lot will be removed from service on a schedule to be determined by the utility. This removal schedule will be provided to the Commission as part of the annual reporting requirement, defined in the reports section below.

If the age of the meters in a lot is 40 years or greater, the lot will be deemed obsolete.

Annual Reports

Not later than March 1 of each year, utilities shall file the following reports, in an acceptable electronic format, with the commission of meters that have been tested the previous calendar year:

Meters that have been tested during the preceding calendar year summarizing all test point values for each lot showing total quantities for each point value.

The test plan for the preceding year including actual quantities removed and tested during that year will contain the following information:

- Lot Number
- Lot Characteristics (Example: Model, Manufacturer and Purchase Year)
- Lot Status (Obsolete Planned Removes, Obsolete Sample Tests, Double Sample Tests, Normal Sample Tests)
- Quantity Installed as of January 1st
- Number of Sample Tests Required for the Previous Year
- Number of Sample Tests Performed
- Previous Year Test Quantity
- Previous Year Total Points;
- Average Points Per Meter
- Previous Year Target Quantity for Removal
- Percentage of Total Installed to be Removed
- Actual Quantity of Meters Removed for the Previous year
- Percentage of Total Installed Meters Removed

The proposed test plan for the subsequence calendar year will be submitted with the following information:

- Lot Number
- Lot Characteristics (Example: Model, Manufacturer and Purchase Year)
- Lot Status (Obsolete Planned Removes, Obsolete Sample Tests, Double Sample Tests, Normal Sample Tests)
- Quantity Installed as of January 1st
- Sample Tests Required for the Current Year
- Previous Year Test Quantity
- Previous Year Total Points

- Average Points Per Meter
- Current Year Target Quantity for Removal
- Percentage of Total Installed to be Removed

Meter Accuracy

For the purposes of R 460.2363 (“Rule 63”) of the Commission’s Technical Standards for Gas Service, which addresses refunds for meter inaccuracy, the Company shall be considered to have “adopted the requirements of R 460.2352” for the duration of the waiver of the Rule 52 meter testing requirements as provided for in Case No. U-17668. Specifically, during the waiver period granted by the Commission in Case No. U-17668, the period that will be used for determining the amount to be refunded to the Company’s customers shall be the period of inaccurate meter registration that is determined pursuant to the provisions of R 460.2362(1) to (2).

**SECTION B
ADMINISTRATIVE RULES INDEX**

B1. TECHNICAL STANDARDS FOR GAS SERVICE (R 460.2301 - R 460.2383) (FOR ALL CUSTOMERS)
http://w3.lara.state.mi.us/orrsearch/108_06_AdminCode.pdf

PART 1. GENERAL PROVISIONS

R 460.2301 Definitions.

R 460.14001 (revised to R460.20101) et seq. are the Michigan Gas Safety Standards. See Rule B9.

R 460.2302 Application, intention, and interpretation of rules; utility rules and regulations.

PART 2. RECORDS, REPORTS, AND OTHER INFORMATION

R 460.2321 Retention of records.

R 460.2501 et seq. are the Rules Pertaining to Preservation of Records of Electric, Gas and Water Utilities. See Rule B8.

R 460.2322 Location of records.

R 460.2323 Reports and records generally.

PART 3. SERVICE REQUIREMENTS

R 460.2331 Sale of gas.

R 460.2332 Permanent service line rules.

Refer to the Company's approved Rule C8, Customer Attachment Program.

R 460.2333 Main extension rules.

Refer to the Company's approved Rule C8, Customer Attachment Program.

R 460.2334 Temporary service.

Refer to the Company's approved Rule C1.4, Unusual Facility Requirements

R 460.2335 Interruptions of service.

R 460.2101 (revised to R 460.101) et seq. are the Consumer Standards and Billing Practices for Electric and Gas Residential Service. R 460.14001 (revised to R 460.20101) et seq. are the Michigan Gas Safety Standards. See Rule B9.

PART 4. ENGINEERING

R 460.2341 Gas facilities; construction and installation.

R 460.2342 Standards of accepted engineering practice.

PART 5. INSPECTION OF METERS

R 460.2351 Meters and associated metering devices; inspections and tests.

The Commission granted the Company a waiver of the Rule 52 meter testing requirements for natural gas diaphragm meters in Case No. U-17668. Refer to the procedures approved in the Commission's Order dated ~~February 12, 2015~~ XXXX XX, 20XX in Case No. U-17668 for the testing requirements of the Company's natural gas diaphragm meters. Pursuant to the Commission's Order in Case No. U-17668, the Company's waiver of the Rule 52 meter testing requirements shall terminate on December 31, 2016. The requirements of Rule 52 as approved by Commission Order dated December 18, 1984 in Case No. U-8000 shall be in effect after the termination of the waiver granted by the Commission in Case No. U-17668. After the termination of the Company's Rule 52 waiver, refer to Rule 52 in conjunction with diaphragm-type meters. Refer to the Company's approved Rule C6, Metering and Metering Equipment.

R 460.2352 Diaphragm-type meters; meter tests; reports.

The Commission granted the Company a waiver of the Rule 52 meter testing requirements for natural gas diaphragm meters in Case No. U-17668. Refer to the procedures approved in the Commission's Order dated ~~February 12, 2015~~ XXXX XX, 20XX in Case No. U-17668 for the testing requirements of the Company's natural gas diaphragm meters. Pursuant to the Commission's Order in Case No. U-17668, the Company's waiver of the Rule 52 meter testing requirements shall terminate on December 31, 2016. The requirements of Rule 52 as approved by Commission Order dated December 18, 1984 in Case No. U-8000 shall be in effect after the termination of the waiver granted by the Commission in Case No. U-17668. After the termination of the Company's Rule 52 waiver, the following Subrule 7(b) as amended and approved by Commission Order dated December 18, 1984 in Case No. U-8000 applies to the Company: "(7)(b) The number of meters in each meter class tested and found within the norm and within each 1% variance from norm between 90% accuracy and 110% accuracy. Meters that are slower than 90% and faster than 110% shall each be grouped separately."

(Continued on Sheet No. B-2.00)

Issued XXXX XX, 20XX by
Patti Poppe,
President and Chief Executive Officer,
Jackson, Michigan

Effective for service rendered on
and after XXXX XX, 20XX

Issued under authority of the
Michigan Public Service Commission
dated XXXX XX, 20XX
in Case No. U-17668